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ABSTRACT

This research measured the effects of students' perceptions of classroom involvement on academic self-concept in high school social studies classes. Sample 1 consisted of 133 11th graders attending an Alabama high school during the 1999-2000 school year. Sample 2 consisted of 259 11th graders attending an Alabama high school during the same year. Students' perceptions of classroom involvement were measured by the Classroom Environment Scale (E. Trickett and R. Moos, 1973). Academic self-concept was measured by the Academic Self-Description Questionnaire II (H. Marsh, 1990). Similar findings from both samples reveal a statistically significant relationship between the variables. Evidence of consistent relationships between the two variables was increased. Grounds for building a general theory about the relationship between classroom involvement and the motivation-related variable of academic self-concept were provided. (Contains 1 table and 29 references.) (Author/SLD)

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The Consistency of Correlation between Students' Perceptions of Classroom Involvement and Academic Self-Concept in Secondary Social Studies Classes

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Abstract

This research measured the effects of students' perceptions of classroom involvement on academic self-concept in high school social studies classes. Sample one consisted of 133 eleventh graders attending an Alabama high school during the 1999-2000 school year. Sample two consisted of 259 eleventh graders attending an Alabama high school during the same year. Students' perceptions of classroom involvement were measured by the Classroom Environment Scale. Academic self-concept was measured by the Academic Self Description Questionnaire II. Similar findings from both samples revealed a statistically significant relationship between the variables. Evidence of consistent relationships between the two variables was increased. Grounds for building a general theory about the relationship between classroom involvement and the motivation-related variable of academic self-concept were provided.

Previous research has found evidence of positive relationships between students' perceptions of classroom involvement and academic self-concept. Using data supplied by middle school students in Texas, Knight and Waxman (1990) found a statistically significant relationship between students' perceptions of classroom involvement and academic self-concept with a strength of $r=.35$. Using data supplied by eighth grade U.S. history students in Mississippi, Byer (2000) found a statistically significant relationship between students' perceptions of classroom involvement and academic self-concept in eighth grade U.S. history classes with a strength of $r=.24$. Lynch (1991) found a positive relationship between students' involvement in classroom learning activities and their academic self-concept.

This study used data provided by eleventh grade U.S. history students in western Alabama to further investigate the relationship between students' perceptions of classroom involvement and academic self-concept in social studies. Pointing to the need for more research concerning student motivation, Waxman and Huang (1996) wrote that student motivations are empirically investigated along with classroom learning environments because the variables are similar.

Students' perception of classroom involvement refers to the extent to which students perceive attentive engagement in classroom learning activities. Academic self-concept refers to the extent to which students have pride and confidence in their academic work. Henry Murray's needs-press theory provided the theoretical underpinning for hypothesizing that students' perceptions of classroom involvement are significantly related to academic self-concept. According to needs-press theory, students who perceive that their classroom involvement needs are being met through participation in stimulating and academically involved classroom learning environments tend to experience an environmentally encouraged sense of beneficial advantage

(Murray, 1938). Educational applications of needs-press theory have indicated that students who perceive a sense of beneficial advantage from involvement in their classroom learning environments are likely to be environmentally encouraged toward improved learning outcomes which may include improved academic self-concepts.

Combs (1982) described perceptions as personal meanings that people develop from interacting with environmental circumstances. People's perceptions have a decisive influence on people's behavior. Perceptions or personal meanings that people develop from interacting with environmental circumstances are a source of behavior. Educators who understand student behavior as influenced by perceptions or personal meanings have the potential to effectively control specific student behaviors. Combs (1982) contended that effective teachers have a positive influence on students' perceptions of classroom environment. Fraser (1989) described the potential for scientific identification of students' perceptions of classroom environment to provide a feasible approach for improving students' classroom learning. Zevin (1983) found that students' involvement in the classroom learning environment promotes their academic motivation. Fouts, Chan, and Biao (1993) found that found that both American and Chinese students' perceptions of classroom involvement were positively related to academic motivation.

This study investigated the extent of the relationship between students' perceptions of classroom involvement and students' academic self-concepts in secondary social studies classes. A correlational research design was used to measure the extent of the association between scores on the study's variables. The theoretical underpinning for this study was provided by Henry Murray's needs-press theory. Murray's needs-press theory holds that students have needs for being involved in classroom learning activities. If students perceive that they are receiving beneficial

advantages from having their classroom involvement needs fulfilled through engagement in classroom learning then they are likely to be environmentally encouraged toward improved learning outcomes that may include enhanced academic self-concept and elevated academic achievement (Murray, 1938).

Method

Participants

The participants in this study included eleventh graders at two public high schools in western Alabama. One hundred thirty-three eleventh graders at a county high school provided data during the 1999-2000 school year. These participants consisted of 73 girls and 60 boys. These participants were all African-Americans and their socioeconomic status ranged from middle class to lower middle class. These participants were enrolled in a U.S. history class. This group will be referred to as the county high school group.

The next group of students will be referred to as the city high school group. The city high school group consisted of 259 eleventh graders who were enrolled in a U.S. history class during the 1999-2000 school year. This group consisted of 133 girls and 126 boys. All participants in the city high school group were African-Americans and their socioeconomic status ranged from middle class to lower middle class.

Instruments

The first instrument used in this study was the involvement subscale of the Classroom Environment Scale (CES) Form R. Trickett and Moos (1973) developed the CES in order to measure students' perceptions of classroom social climate. The students' perceptions of classroom involvement subscale of the CES is comprised by the first ten items of the CES.

Internal consistency reliability coefficients for the CES ranged from .67 to .86 according to the Kuder-Richardson Formula-20 method. Six week test-retest reliability coefficients for the subscales of the CES ranged from .72 to .90 (Conoley, 1989). Strong associations between data from the subscales of the CES and data from interviews and classroom observations has established construct validity for the subscales of the CES. Factor analysis has indicated that the subscales of the CES measured the dimensions of classroom environment that they intended to measure (Connoley, 1989).

The second instrument used in this study was the Academic Self-Description Questionnaire II (ASDQ II). The ASDQ II instrument was designed to measure the academic self-concepts of secondary students in 16 subject areas. The ASDQ II instrument consists of separate six-item scales that measure students' academic self-concepts in sixteen subject areas. The wording of each of the six-item scales for all of the sixteen subject areas is parallel except for the identification of the subject area (Marsh, 1990). Internal consistency estimates of reliability for all of the sixteen scales of the ASDQ II have been determined. Coefficient alpha estimates for the sixteen scales ranged from .885 to .949 (Marsh, 1990; Marsh, 1992).

Construct validity for the ASDQ II has been provided by exploratory factor analysis and by confirmatory factory analysis (Marsh, 1992). Exploratory factor analysis of the ASDQ II instrument's sixteen separate scales has revealed that each of the scales measured the constructs that they intended to measure. Factor loadings of the ASDQ II instrument's measured variables were statistically significant ($p<.05$) and ranged from .668 to .967 (Marsh, 1990).

Procedures

The involvement subscale of the CES was administered to the participants in the study

between March 13 and March 20 of the 1999-2000 school year. The ASDQ II (subject-specific for social studies) was administered to the participants at the same time. Two social studies teachers at the county high school administered the instruments to a total of six of their classes. Three social studies teachers at the city high school administered the instruments to a total of 13 of their classes. The participants' responses to the instruments were anonymous because they were not asked to provide their names or student identification numbers. Teachers informed the participants that school officials would not see the completed instruments. The two instruments took approximately fifteen minutes to administer.

The study's hypothesis of a statistically significant ($p<.05$) relationship between the predictor variable of students' perceptions of classroom involvement and the dependent variable of academic self-concept in secondary social studies was tested using the Pearson r statistical test with a rejection criteria of ($p<.05$). The hypothesis was tested separately for the county high school group and for the city high school group.

Results

The hypothesis was accepted for the county high school group. The mean involvement perception score was 5.5 and the standard deviation was 2.67. A statistically significant ($p<.05$) relationship of $r=.26$ was found between students' perceptions of classroom involvement and academic self-concept. The hypothesis was also accepted for the city high school group. The mean involvement perception score was 4.5 and the standard deviation was 2.52. A statistically significant ($p<.05$) relationship of $r=.34$ was found between students' perceptions of classroom involvement and academic self-concept. Table 1 presents the results of the hypothesis tests.

Table 1. The relationships between students' perceptions of classroom involvement and academic self-concept in secondary social studies classes

County High School Findings

PREDICTOR VARIABLE	DEPENDENT VARIABLE	
Students' perceptions of classroom involvement n=133	Academic self-concept	r=.26*

City High School Findings

PREDICTOR VARIABLE	DEPENDENT VARIABLE	
Students' perceptions of classroom involvement n=259	Academic self-concept	r=.34*

*statistically significant ($p<.05$) relationship

Discussion

This study's finding of statistically significant positive relationships between students' perceptions of classroom involvement and academic self-concept with strengths of $r=.26$ and $r=.34$ closely parallels findings from earlier studies. Knight and Waxman (1990) found a statistically significant relationship between students' perceptions of classroom involvement and academic self-concept with a strength of $r=.35$ and Byer (2000) found a statistically significant relationship between these two variables with a strength of $r=.24$. For scientific evidence to be established at least one comparison should be made (Campbell and Stanley, 1963). Comparing the statistically significant correlation found between students' perceptions of classroom involvement and academic self-concept found in this study with statistically significant correlation found between these variables in other studies provides evidence of a consistent positive relationship between these two variables with strengths ranging between $r=.24$ and $r=.35$. Continued hypothesis testing provides important opportunities for previously tested hypotheses to be retested and either corroborated or disproved using new subjects (Popper, 1979).

Although correlational research designs are weak in providing evidence that the predictor variable actually had a causal influence on the dependent variable (Aron and Aron, 1999), these designs are strong for theory building and for increasing understanding of interrelationships between motivation-related variables that are positively related to academic achievement. Moos and Moos (1978) found a statistically significant positive relationship between students' perceptions of classroom involvement and academic achievement with a strength of $r=.45$. After conducting a metaanalysis of research studies and finding an average correlation of $r=.49$ between academic self-concept and academic achievement, Pajares (1996) concluded that academic self-

concept was a consistently strong predictor of academic achievement. Payne (1992) found a positive relationship r=.26 between academic self-concept and academic achievement and Lyon (1993) found a positive relationship r=.57 between these variables. Herbert W. Marsh (1992) provided evidence that academic self-concept is a subject-specific construct that is most accurately and authentically measured on a subject-specific basis. After investigating the relationship between subject-specific academic self-concept and subject-specific academic achievement in 14 subject areas, Marsh (1992) concluded that an average correlation of r=.57 existed between these two variables. As developers of a theory of educational productivity, Uguroglu and Walberg (1979) found that motivation accounted for 11% of the variance in academic achievement and these researchers also found that academic self-concept was the strongest motivation-related variable as a predictor of academic achievement.

Much educational research literature has examined correlation between motivation-related variables and their relationships with academic achievement but motivation is a broad concept that is so nebulous and ambiguous that it requires definition. Soukhanov (1988) defined motivate as meaning to impart courage, inspiration, and resolution to, or to stir to an action or feeling. Soukhanov (1988) defined motivation as something that encourages or a basis for an action or decision. Woolf (1979) defined motive as something (as a need or desire) that causes a person to act. Woolf (1979) defined motivation as the process of promoting incentive and drive. Notice the overlap between definitions of motivation and Henry Murray's needs-press theory. Murray's needs-press theory implies that students have needs for classroom involvement and if these needs are satisfied by academic engagement in classroom learning then their academic incentive and scholastic drive will tend to be environmentally promoted. Bloom (1976) contended that academic

self-concept was the strongest of the affective variables as a predictor of academic achievement. Concurring with Bloom, Lyon (1993) presented academic self-concept as a noncognitive characteristic that helps educators understand students' academic behavior.

This article has provided empirical evidence of a consistent positive relationship between students' perceptions of classroom involvement and academic self-concept in secondary social studies classes. This article has provided empirical evidence of a positive relationship between students' perceptions of classroom involvement and academic achievement. This article has also provided evidence from other research of a consistent positive relationship between academic self-concept and academic achievement.

Correlation provides no proof of a direct causal influence of students' perceptions of classroom involvement on academic self-concept and correlation provides no proof of a direct causal influence of academic self-concept on academic achievement. However, Murray's needs-press theory implies that the classroom environment has the potential to environmentally encourage students toward positive learning outcomes that include elevated academic self-concept and elevated academic achievement. Even if students' perceptions of classroom involvement and academic self-concept are not causally related to academic achievement it is evident that promoting improvements in students' perceptions of classroom involvement and academic self-concept are important motivation-related goals in their own right.

Researchers have discovered feasible approaches by which classroom teachers can realistically and meaningfully improve their students' classroom involvement perceptions and their students' academic self-concepts. Fisher and Fraser (1984) found that classroom teachers have successfully intervened in order to improve selected dimensions of classroom environment.

Replications of Fisher and Fraser's research have indicated that classroom teachers have the influencing power to elevate their students' perceptions of classroom involvement. Fraser (1989) provided a classroom intervention process that guides and measures teachers' attempts to elevate their students' perceptions of selected dimensions of classroom environment. First, the teachers administer the CES to all of their students. The teachers note dimensions of classroom environment with low student perceptions. Teachers collaboratively discuss ideas for intervening in order to improve their students' perceptions of selected dimensions of classroom environment. After an intervention period of about six weeks, the students complete the CES again. This data is compared to students' responses to the first administration of the CES in order to determine whether or not the intervention elevated students' perceptions of selected dimensions of classroom environment. Shindler (1998), Colvin and Schlosser (1998), Canfield and Wells (1994) and Moeller (1994) have suggested approaches for enabling classroom teachers to realistically and meaningfully elevate their students' academic self-concepts. Emphasizing the importance of classroom climate on academic self-concept, Shindler (1998) advised teachers not to accept any negative self-talk or any form of "put downs" during class. Shindler recommended that teachers provide students with clear feedback concerning academic work and that teachers have high expectations for all students and point out occasions in which students achieve academically. Colvin and Schlosser (1998) contended that students' confidence to perform an academic task (academic self-concept) is likely to influence their academic performance. They recommended that teachers create confident classroom environments by emphasizing students' strengths and addressing students' weaknesses in ways that encourage risk taking and perseverance. Teachers must project confidence that their students can be capable and confident learners.

Teachers need to project high academic expectations for their students and teachers also need to challenge students with academic work that requires a substantial investment of effort. Canfield and Wells (1994) recommended that students write about their academic growth in reflective journals. These researchers also recommended that teachers encourage students to focus on the positive by telling their classmates about their academic accomplishments. Moeller (1993) provided evidence that attempts to raise academic self-concept in the absence of improved academic achievement were unsuccessful. Moeller found that attempts to promote academic achievement resulted in greater academic self-concept gains than programs that were explicitly designed to promote academic self-concept. He recommended that teachers and parents encourage students to persevere in their striving for academic excellence.

Conclusion

This article has presented new evidence of a consistent positive relationship between the motivation-related variables of students' perceptions of classroom involvement and academic self-concept. Examples of feasible approaches that teachers can use to increase their students' perceptions of classroom involvement and their students' academic self-concepts were included. This article has provided examples indicating that students' perceptions of classroom involvement and academic self-concept are motivation-related variables that are positively related to academic achievement. According to Waxman and Huang (1996), teachers can improve students' academic achievement by promoting positive learning environments and by promoting students' motivation. By promoting positive learning environments and student motivation, teachers foster resilience that enables students to recover from academic failures and to persevere toward academic success.

More generally, the findings of this article provide scientific evidence that a clock like relationship exists between the motivation-related variables of students' perceptions of classroom involvement and academic self-concept in secondary social studies classes. Four separate studies at different secondary schools over a period of ten years have revealed consistently similar correlation between students' perceptions of classroom involvement and academic self-concept. A positive relationship that occurs with clock like regularity has been discovered between scores measured on these two motivation-related variables. Karl Popper (1979) speculated about whether human behavior (and derivatively student behavior) is more like a clock or more like a cloud. If human behavior is more like a clock then it mainly consists of consistent, regularly occurring, predictable, and potentially manipulatable behavior. If human behavior is more like a cloud then it mainly consists of inconsistent, idiosyncratic, and unpredictable behavior that would be difficult if not impossible to predict and manipulate. The fact that the relationship between the motivation-related variables of students' perceptions of classroom involvement and academic self-concept occurs with clock like regularity provides limited evidence that some aspects of students' behavior consistently occur with clock like regularity. There is a need for the development of a general theory about the relationship between academic motivation and academic achievement that will be useful for promoting improvements in academic motivation and academic achievement.

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